couldn't find any significant relationship between other variables and the type of axillary surgery.

Conclusions: In this study, sentinel node biopsy only was associated with better results of skin colour after conservative surgery and radiotherapy. This may be related to an improved skin tolerance to secondary effects of radiation when axillary lymphatic function is preserved. Other studied variables may be more dependent on tumor location and breast surgical technique than on axillary surgery.

130 Poster

Sentinel node biopsy in breast cancer, a novel method with new photosensitizer since 2004

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Purpose: Sentinel node navigation biopsy for breast cancer is now popular method in the world.

Isotope and blue dye are usually used for detecting sentinel node.

The purpose of the study is to develop an alternative procedure for SLN biopsy.

We examined the efficacy and safety of SLN biopsy by using Talaporfin sodium (Laserphyrin®) comparing with current methods for breast cancer operation.

Materials and Methods: This drug was developed for photodynamic therapy and on sale from June 2004 in Japan. 2~3 ml of Talaporfin sodium solution was locally injected in subareolar just before operation. We tried to detect sentinel node that was fluorescenced and coincident with RI methods.

Results: From June, 2004, we experienced 20 cases of sentinel node navigation surgery by using photosensitizer for breast cancer. About 20 minutes after injection, "shocking pink" colored sentinel node and lymph route was detected in the area of near axilla, where 405 nm light was exposed in the dark.

Furthermore those colors were able to be seen by only wearing special glass. After operation, there were no any side effects including skin photosensitivity to the patients.

Discussions: The results suggest that there is no correlation between fluorescence and pathological SLN metastasis. But all 3 cases of pathological SLN metastasis revealed positive fluorescence. In some cases which could not identify SLNs by RI method, we could identify SLNs by Laserphyrin. Amount of radio-isotope might influence to identify of SLNs with Laserphyrin. Also the depth of injection might influence to identify of SLNs with Laserphyrin. Laserphyrin made possible observation of not only SLNs, but also a route, second SLNs. This characteristic might be useful for exclusion of skip metastasis and appropriate sampling second nodes. One of these patients is under the treatment of chronic renal failure. There is no influence after the operation. Laserphyrin is metabolized in a liver. Thus for renal failure patients, it is suggested to be more safe than using patent blue.

Conclusions: Since June 2004, we have experienced 20 cases of sentinel node navigation surgery by using new photosensitizer for breast cancer. Sentinel node navigation biopsy by using Talaporfin sodium (Laserphyrin®) is considered to be useful as compensation of current methods.

There were no any adverse effects including skin photosensitivity in all of cases. However only a limited number of patients were investigated. Thus further investigation will be required to confirm the feasibility and safety of this approach.

131 Poster

Sentinel node biopsy in multifocal breast cancer: Accuracy of blue dye assisted four node sample

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Introduction: Sentinel Lymph Node Biopsy has been validated for unifocal breast cancer. In spite of few published reports multifocal invasive breast cancers are generally considered to be a contraindication for SNB. Most of the studies have employed a peritumoral, radio tracer approach. We describe our results of a simple technique of blue dye only assisted four node sample to minimize the false negative rates.

Aims: The purpose of our study was to evaluate the feasibility and accuracy of SNB in patients with multifocal breast cancer using a subareolar injection of blue dye alone for sentinel lymph node (SN) mapping.

Methods: The study was conducted prospectively to collect data of all patients with multifocal cancers undergoing sentinel node biopsy. Consecutive patients undergoing axillary dissection for breast cancer were included in the study.

Four blue node sample technique: We perform a sentinel node biopsy using sub-areolar injection of 2ml of patent blue V dye just before prepping the patient and massaged for one minute. The time interval between the injection and incision was 5 to 7 minutes. The blue lymphatic tract was identified leading to the sentinel node and the blue tracts were traced to identify further blue nodes. The dye was traced distally to make sure there were no submammary nodes were missed. Blue nodes were sent separately and further axillary dissection was completed in all cases.

Results: A total of 74 patients underwent sentinel node biopsy during a six month period from April 2004 to September 2004 with an overall success rate of 97%. Of these, 17 patients had multifocal disease. Mean age was 57.2 years. Sentinel node was found in all the 17 patients. In 13 of these cases four or more blue nodes were dissected in the SNB sample. Thirteen patients were node positive (13/17, 76.5%). The overall accuracy and sensitivity of four blue node sample was 100% for multifocal cancers. There were no false negative cases. The Sentinel node sample included all the positive nodes in 7/13 of cases.

Conclusion: Blue dye assisted sampling technique picking up at least four nodes is accurate in predicting the axillary status in patients with multifocal cancers. It is simple and avoids the use of radiotracers. It is a simple modification of the four node technique practised by more than 50% surgeons and there by minimises the learning curve for those wishing to adopt sentinel node technique.

Wednesday, 22 March 2006 16:00–16:45

POSTER SESSION

Ductal and lobular carcinoma in situ

132 Poster

Effects of letrozole and anastrozole on ductal carcinoma in situ (DCIS): results from a randomised trial

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Introduction: A number of ongoing clinical studies are investigating the effectiveness of aromatase inhibitors in patients with DCIS but there have been no studies looking at the biological effects of aromatase inhibitors on DCIS. This study investigates the effects of letrozole and anastrozole on cell proliferation in patients with DCIS.

Materials and Methods: 206 postmenopausal women with 209 invasive estrogen receptor (ER) positive breast cancers were enrolled into a randomised pre-operative trial of 14 days treatment with either 2.5 mg of letrozole or 1 mg of anastrozole. A review of initial core biopsies at diagnosis and excision specimens at surgery identified 27 patients with 28 pairs of samples [15 who received anastrozole (A) and 13 letrozole (L)] with sufficient ER positive invasive cancer and DCIS for analysis. Assessment included ER, progesterone receptor (PgR), HER2, and proliferation (Ki67) by immunohistochemistry with FISH for HER 2+. ER and PgR were scored by Allred scores and proliferation scored as % Ki67 positive cells. Results are presented as means (SEM); analysis is by paired t tests and Pearson's correlation.

Results: *Invasive cancers, Proliferation:* **A** reduced tumour cell proliferation from baseline in 14/15 cancers from a mean of 9.33 (2.31) to 1.43 (0.46), $p = 0.001$ – median and mean reduction 78% (58–91) and 71.1% (8.7) from baseline. **L** reduced proliferation from baseline in all 13 cancers from a mean of 7.46 (1.52) to 0.96 (0.39), $p = 0.001$ – median 85% (66–94) mean 78.8% (6.6) reductions from baseline.

DCIS, Proliferation: **A** reduced proliferation in DCIS from 10.1 (3.0) to 4.24 (1.52), $p = 0.058$, by a median of 57% (-68–89): mean fall was 24.4% (31.8). **L** reduced proliferation from 11.8 (2.34) to1.86 (0.76), $p < 0.001$ by a median of 83% (68–92) and a mean of 77% (6.9).

Summary of changes in proliferation in DCIS

Drug	Increase	No change	Reduction	Median % reduction from baseline
Anastrozole	2	3	10	57 (–66 to 89)
Letrozole	0	0	13	83 (68 to 92)

There was a significant correlation between the magnitude of change in cell proliferation between invasive cancers and DCIS in same patient for L, $p = 0.026$, but not for A, $p = 0.72$.